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Full
Rocket
Leaflet

DOC <u>65</u>	REV DATE <u>29 MAY 1988</u>	BY <u>018373</u>
ORIG COMP <u>56</u>	OPI <u>56</u>	TYPE <u>03</u>
ORIG CLASS <u>M</u>	PAGES <u>3</u>	REV CLASS <u>C</u>
JUST <u>22</u>	NEXT REV <u>2010</u>	AUTH: MH 70-2

ORIGINAL CL BY 235979
☐ DECL ☒ REVW ON 2010
 EXT BYND 6 YRS BY 5 AME
 REASON 32(3)

PROGRESS REPORT

FOR

SEPTEMBER 1955

ON

4-INCH ROCKET

October 25, 1955

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Work for the month of September led to the conclusion that the re-designed motor was capable of withstanding statically an imposed force approximately equivalent to that to be encountered in the full range model.

Several models were fired statically with both three motor tubes and six motor tubes. The plastic material, made by Formica, used in the head block has been tested repeatedly with no ill effects. One motor was tested with a head block made of unreinforced polyester, which shattered on firing due to the brittleness of this material. The result was not unsuspected and steps are being taken to improve this material by adding glass cloth reinforcement and by adding sufficient flexible polyester to reduce the brittleness.

Single motor tubes were fired whose nozzles were bonded inside the tube with four new sample adhesives, Shell "Epon VI", Armstrong "A-6", Cycleweld "C-14" and National Adhesives "Duro-Lac 2010". Only Armstrong "A-6" and Cycleweld "C-14" seemed usable and further tests are planned, comparing these resins with the one normally used, Bakelite "Epoxy ERL2774".

On September 20, a trip was made to a proposed flight test area at another site. The general conclusion of the meeting was that while it was possible to use the area, it was rather unsuitable from the standpoint of safety and the extensive precautions which would be necessary. At the end of the month an inspection trip was made to an area at Station One. This seemed sufficiently suitable to all concerned, and plans were made for its use as soon as possible. This area is approximately 300 x 4500 feet, with the possibility of using another 1000 feet across a road which would then require intermittent blockading.

Future Work

Head blocks made from other casting resins will be tested. With the goal in mind of achieving a production type model, the use of simple casting resins would be much preferred to those resins requiring high pressure molds.

Tests will continue on bonding resins to determine which gives the highest bond strength.

As soon as possible, flight tests will be scheduled. In the first test, emphasis will be placed on the safety and reliability of the item, rather than an effort to achieve a particular range or flight time. In later groups of flight tests, efforts will be made to achieve a ten second flight time so that the prototype timing device can be tested. This flight time is approximately that calculated for a 500 yard range.

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Financial Statement

Total Amount of Contract (Phases 1 and 2)

Obligations for September, 1955


Total Obligations to September 30, 1955

Balance of Contract



50X1

Expiration Date - February 1, 1956

* This total now includes  transferred from
Phase III to Phase II.

50X1

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10/31
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